

超低阻值厚膜片式固定電阻器

Low Ohmic Thick Film Chip Fixed Resistor

■ 特點 Features

● 阻值範圍: $4.7\text{m}\Omega \sim 1000\Omega$

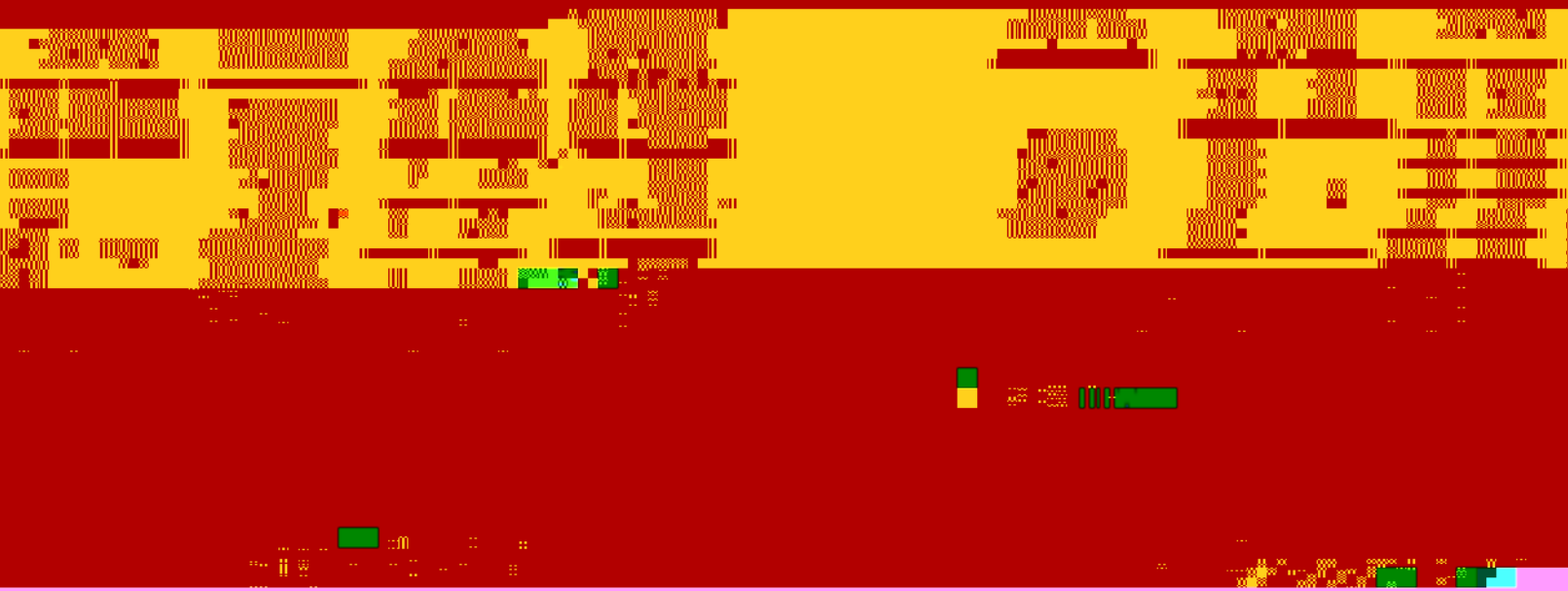
電源轉換器、充電器、LED燈驅動電源、便携式設備等

符合RoHS指令要求

Compliant with RoHS directive

■ 應用領域 Application

開關電源、音響設備的過電流保護、電壓調節器、



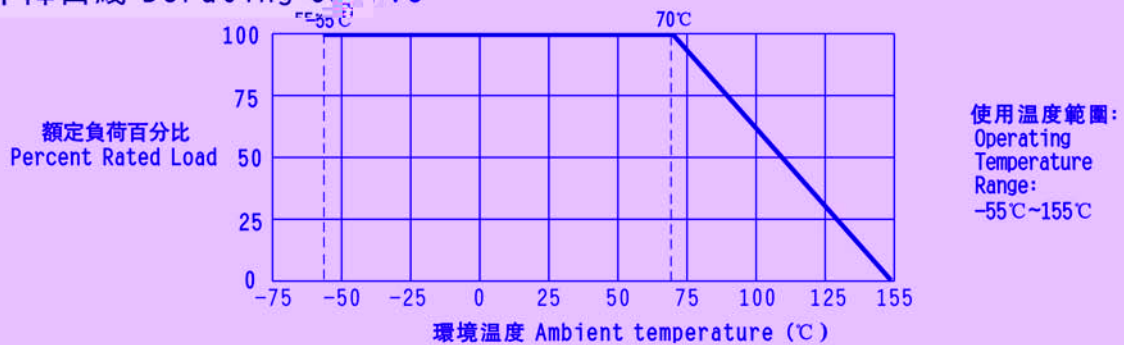
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■ 規格尺寸 Dimensions

型號 Type	尺寸 Dimensions(mm)				
	L	W	t	a	b
0603	1.60±0.15	0.80±0.15	0.40±0.10	0.30±0.20	0.30±0.20
0805	2.00±0.20	1.25±0.15	0.50±0.10	0.30±0.20	0.40±0.20
1206	3.20±0.20	1.60±0.15	0.55±0.10	0.50±0.20	0.50±0.20
1210	3.20±0.20	2.50±0.20	0.55±0.10	0.50±0.20	0.50±0.20
2010	5.00±0.20	2.50±0.20	0.55±0.10	0.60±0.20	0.60±0.20
2512	6.40±0.20	3.20±0.20	0.55±0.10	0.60±0.20	0.60±0.20

■ 負荷下降曲線 Derating Curve



注：當電阻使用的環境溫度超過70°C時，其額定負荷(額定功率)按上述曲線下降。

Note: For resistors operated in ambient over 70°C, rated load (rated power) shall be derated in accordance with the above figure.

■ 額定值 Ratings

型號 Type	70°C下額定功率 Rating Power at 70°C (W)	元件極限電壓 Limiting Element Voltage (V)	最大過負荷電壓 Max. Overload Voltage (V)
0603	1/10	50	100
0805	1/8	150	300
1206	1/4	200	400
1210	1/3	200	400
2010	3/4	200	400
2512	1	200	400

注Note:

- 電壓為直流或交流有效值。
Voltage of DC or AC RMS value.
- $E = \sqrt{P \times R}$ 或元件極限電壓兩者中的較小值。
 $E = \sqrt{P \times R}$ or Limiting element voltage whichever is lower.
E: 額定電壓 Rated voltage (V)
P: 額定功率 Rated power (W)
R: 標稱阻值 Normal resistance (Ω)

型號 Type	阻值範圍 Resistance Range	電阻溫度係數 T.C.R (ppm/°C)			
		標稱阻值允許偏差 Resistance Tolerance			
		±1%	±2%	±3%	±5%
0603	0.022Ω < R < 1Ω	±500	±500	±500	±500
0805 1206 1210 2010	0.01Ω < R < 1Ω	±500	±500	±500	±500
2512	0.0047Ω < R < 1Ω	±500	±500	±500	±500

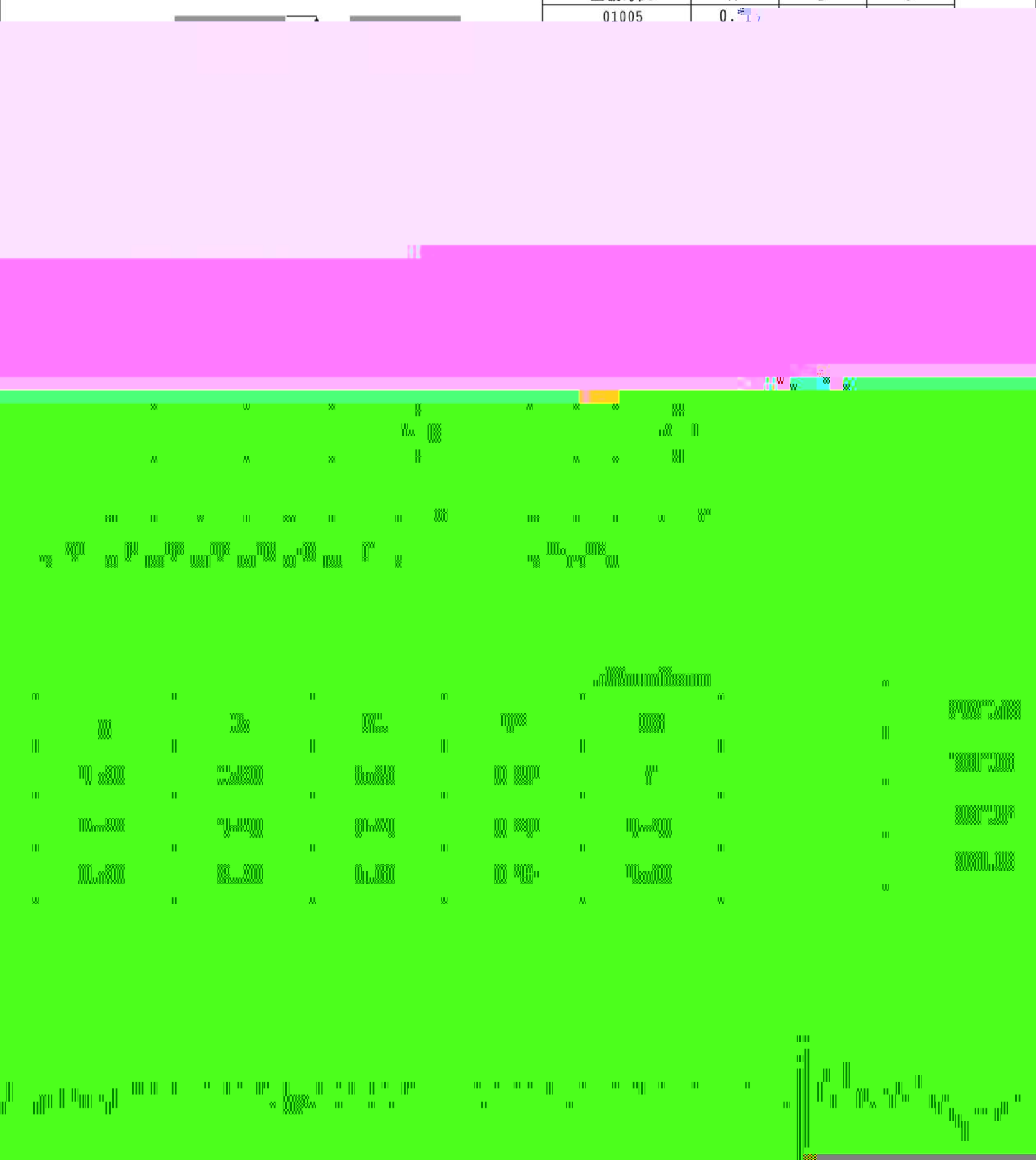
附錄 Appendix

■ 推薦焊盤尺寸 Recommend Solder Pad Size

- 片式固定電阻器 Chip fixed resistor

單位 unit: mm

型號Type	A	B	C
01005	0.7		

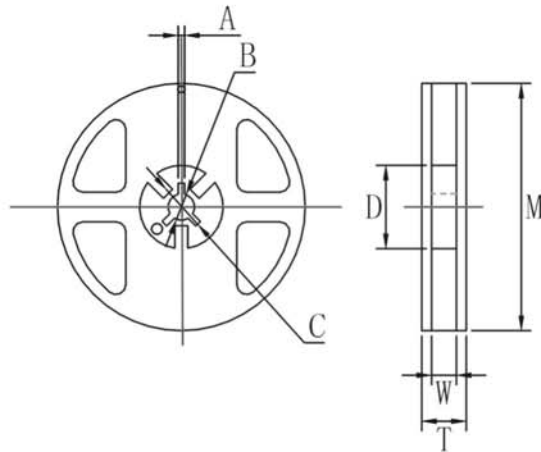


附錄 Appendix

單位 unit: mm

型號 Type	A	B	W	F	E
0603	1.85 ± 0.10	1.10 ± 0.10	8.00 ± 0.20	3.50 ± 0.05	1.75 ± 0.10
0805	2.35 ± 0.10	1.65 ± 0.10	8.00 ± 0.20	3.50 ± 0.05	1.75 ± 0.10

● 卷盤 Reel



單位 unit: mm

型號 Type	M	W	T	A	B	C	D
01005、0201 0402、0603 0805、1206 1608	178±2.0	0.5±1.0	12.5±1.5	2.0±0.5	13.0±0.5	21.0±0.5	59.0±2.0

01005	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0201	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0402	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0603	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0805	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
1206	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
1608	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm

01005	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0201	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0402	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0603	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
0805	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
1206	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm
1608	0.5mm	0.5mm	12.5mm	2.0mm	13.0mm	21.0mm	59.0mm



■ 片式電阻器使用說明 Chip Resistor Instructions for Use

● 本產品在以下特殊環境下應用，性能可能會受到影響：

- 1、在各種類型的液體，包括水、油、化學品、有機溶劑的使用。
- 2、在戶外直接暴露在陽光的地方，或在灰塵多的地方使用。
- 3、在產品暴露的地方，有海風或腐蝕性氣體，包括氯氣、硫化氫、氨氣、二氧化硫、二氧化氮。
- 4、在產品暴露于靜電或電磁波的地方使用。
- 5、在產生熱量的部件、塑料線、或其他易燃物品附近使用。
- 6、在用樹脂或其他塗層材料密封產品的情況下使用。
- 7、焊接后使用不潔焊料或使用水或水溶性清洗劑清洗產品。

Application of the products in a special environment can deteriorate product performance:

1. Use in various types of liquid, including water, oil, chemicals, and organic solvents.
2. Use outdoors in direct sunlight or in dusty places.
3. Use in places where the products are exposed to sea wind or corrosive gas, including chlorine, hydrogen sulfide, ammonia, sulfur dioxide, and nitrogen dioxide.
4. Use in places where the products are exposed to static electricity or electromagnetic waves.
5. Use in proximity to heat-producing components, plastic cords, or other flammable items.
6. Use involving sealing or coating the products with resin or other coating materials.
7. Use involving unclean solder or use of water or water-soluble cleaning agents for cleaning after soldering.

產品使用注意事項

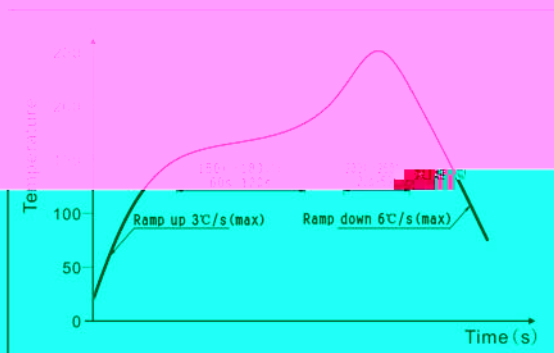
- 1、避免采用超過正常額定功率的功率，超過額定功率的穩態負載條件下可能會對產品性能和可靠性產生負面影響。
- 2、用鑷子拿起產品時要小心，有可能會將保護或電阻體夾碎。
- 3、手動安裝產品時，烙鐵頭勿觸碰產品。
- 4、貯存條件：溫度5℃ - 30℃，相對濕度30% - 70%。

Precautions on use of products

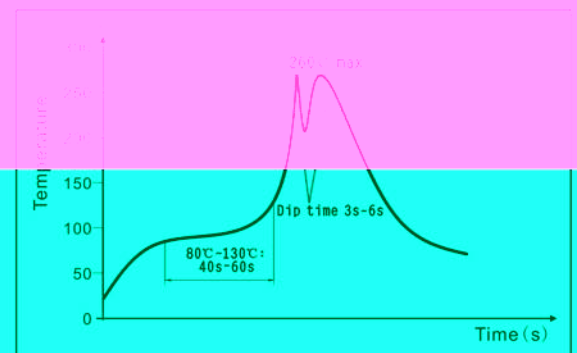
1. Avoid applying power exceeding normal rated power, exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
2. Be careful when picking up the products with tweezers. There may be a care that the overcoat and / or the body can be chipped.
3. Soldering tip shall not touch the product when install product manually.
4. Storage conditions: T: 5°C - 30°C, RH: 30% - 70%.

■ 焊接 Soldering

推薦的回流焊曲線 Recommended reflow profile



推薦的波峰焊曲線 Recommended wave solder profile



● 推薦的焊膏類型 Recommended solder alloy: 96.5Sn7.3Ag0.5Cu